DOCUMENT RESUME

ED 219 677 CG 016 100

AUTHOR Treiber, Frank A.; And Others
TITLE Expectations of Developmental Milestones by Middle Class Parents and College Freshmen.
PUB DATE Mar 82
NOTE 18p.; Paper presented at the Annual Meeting of the Southeastern Psychological Association (28th, New Orleans, LA, March 24-27, 1982).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Child Development; Child Rearing; *College Freshmen; Comparative Analysis; Developmental Tasks; *Expectation; Higher Education; *Middle Class Parents; *Parent Attitudes; Parent Child Relationship; Parent Education; *Student Attitudes
IDENTIFIERS *Proud Parent Syndrome

ABSTRACT

It has generally been assumed that lower socioeconomic status teenage parents are atypical in their expectations about child development compared to other parental groups. However there is little information available concerning the expectations of middle class parents. Middle class nonparent teenagers (N=50) and two parental groups (participants in Lamaze prenatal development classes (N=19) vs. those who had not participated in Lamaze classes (N=26) were assessed on their beliefs concerning developmental milestones in early childhood. Results indicated that the teenagers' mean scores were more realistic than the parental groups in several areas (e.g., motor development). However, a closer examination of error scores (absolute deviation from norm) revealed that the teenagers made statistically significantly greater errors while the parental groups (especially the Lamaze subjects) were closer to the norms, but still precocious in their expectations. The results may be a result of the "Proud Parent Syndrome," a phenomenon identified in previous research that finds parents, after their child's birth, concluding that their child is developmentally advanced compared to a normal child. (Author/JAC)

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Expectations of Developmental Milestones by Middle Class Parents and College Freshmen

Frank A. Treiber, David P. Gleisner, and Stephen Wilcox

University of Georgia

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Running Head: Developmental Milestones

Expectations of Developmental Milestones by Middle Class Parents and College Freshmen

A number of risk factors have been associated with teenage parents whose infants experience developmental delays. The mother often comes from a low socioeconomic background, which is associated with low educational achievement, low income level, poor nutrition, disturbed family relations (e.g., father absent or uninvolved), and poor medical care (Furstenberg, 1976; Levenson, Hale, Hollier & Tirado, 1978; Moore, Hofferth & Wertheimer, 1979).

Related to these factors are the recent findings (De Lissovoy, 1973; Field, Widmayer, Stringer, & Ignatoff, 1980) that teenage parents typically have unrealistic expectations of child development as well as punitive child rearing attitudes. Since developmental norms are often used as guidelines for expected behavior, the parents' beliefs regarding child development often affect their reactions to their child's behavioral patterns. Researchers are quick to note, though, that parental attitudes are not necessarily synonymous with their actual behavior (Korner, 1980). However, the work of De Lissovoy (1973) and Field et al. (1980) has shown that teenage parents' developmental expectations are related to interactions with their infants. These researchers administered a questionnaire which required the parents to identify the age at which a child should demonstrate certain behaviors. For example, one question asked, "At what age do you think a baby should be able to pull himself up by using furniture?" Information was gathered in this manner concerning the parents' expectations of various developmental milestones such as: smiling, crawling, walking, talking, toilet training and obeying commands.

Their results indicated that the teenagers were not very familiar with developmental norms. In fact, most of these parents expected the behaviors to develop much sooner than they do. In addition, the findings from a childrearing attitude survey as well as behavioral observations revealed the parents to be very impatient, insensitive, intolerant and prone to employ physical punishment with their children. De Lissovoy (1973) claimed that a partial reason for the frequent use of punitive management techniques was the teenagers' disenchantment with the babies' failure to perform various motor behaviors (e.g., sitting, crawling, and walking) and social behaviors (e.g., smiling and obedience to verbal commands) at the expected age. These childrearing behaviors resulted in decreased and more punitive parent-infant interactions which further impeded the infants' development. It is reassuring to note that both prenatal (e.g., Osofsky & Osofsky, 1970; Sandler & Vietze, 1979) and postnatal intervention programs (e.g., Field et al., 1980) have improved teenage parents' developmental expectations and caretaking behaviors which have helped alleviate some of the infants' developmental handicaps.

The assumption has been that the low SES teenage parents are atypical in their expectations compared to other parental groups. However, there is no information available concerning middle class parents who have raised children. This information would be relevant to the claims of some researchers (e.g., De Lissovoy, 1973; Field et al. 1980) that a primary reason for teenage parents' unrealistic expectations and punitive childrearing techniques is their lack of direct experience with raising children. In addition, middle class teenagers have not been surveyed concerning their perceptions of child development. This would be of great value in determining whether or not there is a need for child

development awareness programs in the educational system. The purpose of the present study was to assess the developmental milestone expectations of middle class non-parent teenagers and middle class parents who have raised children. This research is necessarily quasi-experimental (Cook & Campbell, 1979) in that the groups being compared were not assumed to be equivalent on background characteristics. Comparisons were made for normative purposes, and these comparisons are regarded as exploratory (cf. Meehl, 1968).

Method

Participants. The sample of teenagers consisted of 25 males and 25 females enrolled in their first quarter at the University of Georgia. All of the student participants were Caucasian, less than 19 years old and classified as middle class based upon the educational level and employment status of their parents. The male subjects had between 1 and 9 siblings with a mean of 1.8. The females had from 1 to 8 with a mean of 2.3. The majority of the students had been exposed to various aspects of child development through observation of younger siblings or babysitting.

The middle class parent group, also Caucasian, was divided into two general subgroups based upon whether or not they participated in Lamaze prenatal development classes. This categorization was employed since part of Lamaze training involves instruction in developmental milestones and caretaking behaviors. The non-Lamaze group consisted of 21 females ranging in age from 29 to 44, with an average age of 33.5. The average number of children of these females was two. There were 5 males in the non-Lamaze group ranging in age from 29 to 43 years with an average age of 34.6. This sample of parents was obtained by having children from a local elementary school take the questionnaire home with the request that

the parents complete the forms.

The Lamaze group consisted of 10 females ranging in age from 21 to 35 years with an average age of 26. The average number of children in this group was one. Nine males participated, their ages ranging from 21 to 31 with an average of 27.3. Members of the Lamaze group had previously participated in another infant study.

Instrument. The survey administered to the participants was the Milestone of Developmental Expectations and Childrearing Attitudes, the same form used in De Lissovoy's 1973 study and the Field et al. (1980) research. The survey assesses one's predictions regarding the age of onset of the following developmental milestones: smiling (SM), sitting alone (SA), pulling up to standing (PU), walking (WA), talking (TA), toilet training (TT), and obeying commands (OC).

Results and Discussion

The results are shown in Table 1, which presents group mean scores

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Insert Table 1 about Here

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on the seven behaviors. Since the various milestones were interrelated, the data were assessed with a multivariate analysis of variance. Using Pillai's Trace criterion, as suggested by Olson (1976), a significant difference was obtained between the groups, $F(16, 168) = 2.44$, $p < .002$. Separate non-parametric Kruskal - Wallis univariate analyses of variance were performed on each milestone. This test was chosen as a conservative measure, since the assumption of homogeneity of variance was violated for some of the measures. Significant differences were found for four of the seven behaviors: PU, $x^2(2) = 10.36$, $p < .005$; WA, $x^2(2) = 14.52$, $p < .0007$; TA, $x^2(2) = 9.26$, $p < .009$; OC, $x^2(2) = 5.70$, $p < .05$.

In what follows, overestimation and underestimation will refer respectively to situations in which a behavior is predicted to occur earlier than or later than it actually does. Two of the three milestones related to motor development, pulling up and walking, indicated significant differences between the groups. In both cases, the college students' mean responses were right on target while both parent groups overestimated in their judgments, more so with the non-Lamaze group. Although no significant differences were found concerning toilet training, $x^2(2) = 4.62$, $p < .09$, the same pattern was shown. The college students were closest in their mean expectations along with the Lamaze parents, while the non-Lamaze group overestimated the most.

With respect to obedience training, all three groups overestimated. The mean of the college freshmen was again closest to the norm. All groups underestimated the onset of language with the two parent groups being closest in their predictions.

Further information is provided by an evaluation of each subject's absolute deviation from the norm for each of the milestones (1 norm age -- predicted age 1). The average deviation for each group on all seven milestones is presented in Table 2. Separate univariate analyses

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Insert Table 2 About Here

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of variance were performed on each of the milestones. Significantly greater deviations from the norm were found for four of the behaviors: PU, $F(2, 92) = 3.46$, $p < .03$; WA, $F(2, 92) = 2.91$, $p < .05$; TA, $F(2, 92) = 8.18$, $p < .0005$; SA, $F(2, 92) = 6.37$, $p < .002$. These findings showed that the college students made the largest errors in estimation on all four behaviors. The Lamaze parents showed the least errors from the norm

on all but one milestone (i.e., SA). Furthermore, even in those cases in which the differences were not significant, the same general trend was shown. That is, the college students made the largest errors, followed by the non-Lamaze group, with the Lamaze parents showing the smallest errors.

In conjunction with the previous analysis, these results indicate that the college students were equally likely to guess either above or below the norm. Thus, their group means were quite close to the norms on several milestones. Since the parental groups were much more likely to overestimate, their group mean scores were usually less than the norm. Furthermore, since the parental groups usually showed smaller ranges in their predictions, evaluation of the deviation scores showed that they (especially Lamaze parents) made smaller errors than the college students. This is clearly shown in Fig. 1 in which the

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Insert Figure 1 about here

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frequency distribution for the college students is approximately symmetrical about the norm but the distribution is much broader than the parental groups.

Overall, the parent groups tended to overestimate in their predictions, especially the non-Lamaze parents. These overestimations in both parent groups are thought to be due to what we will term the "Proud Parent Syndrome". That is, many middle class parents believe their children develop at a precocious rate, and in retrospective analysis these beliefs are enhanced. As far as differences between the Lamaze and non-Lamaze groups, it does appear that the Lamaze parents were more realistic in their expectations, perhaps partially a result of the prenatal classes and/or general differences in attitudes toward child development. These attitudinal differences may be a result of the Lamaze parents' higher educational level (i.e., M years of education 16.5 vs. 12.04). That is,

many of the Lamaze parents had taken courses in child development and/or related areas. In addition, these parents probably devoted more time to various methods of self instruction (e.g., reading, lectures, films) than the non-Lamaze parents. Finally, the fact that the Lamaze parents enrolled in the prenatal course and also that few non-Lamaze parents even took the time to fill out the questionnaire also supports the view that there were attitudinal differences present in these two parental groups.

These findings, concerning college students along with the research involving teenage parents (e.g., De Lissovoy, 1973; Field et. al 1980), indicate that teenagers are generally very unrealistic in their expectations of child development. This illustrates the need for programs in the educational system focusing on infant and child development and caretaking strategies before these individuals become parents. It has been found in the past (e.g., De Lissovoy, 1973; Field et. al 1980) that teenage parents tend to be overly optimistic (overestimate) in their expectations of child development. The fact that our parental groups generally overestimated casts doubt on the notion that teenage parents' inaccurate beliefs are due to lack of direct experience in raising children. It may be that these unrealistic expectations (typically precocious), seen in other researchers' work with teenage parents and in our findings with older middle class parents, are a result of what we have called the "Proud Parent Syndrome". To reiterate, following the birth of their own children, parents soon conclude that their children are developmentally advanced compared to the normal child. Thus, they expect their children to develop precociously. Since parents' expectations have been correlated with the use of punitive childrearing techniques (De Lissovoy, 1973; Field et. al. 1980) there would seem to be a general need to educate parents

as to the age norms of various developmental milestones. It should be noted that these findings must be interpreted with extreme caution, since the role of various nuisance variables in ex post facto studies is not known (see Meehl, 1968). Nevertheless, the results warrant further inquiry into a number of issues concerning people's expectations of child development.

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Table I

Subgroup Mean Scores on Developmental Milestones

Developmental Milestone	Norm (weeks)[a]	College Freshmen	Non-Lamaze Parents	Lamaze Parents
Social Smile	6	5.35	6.8	4.8
Sit Alone	28	33.1	25.5	27.84
Pull up To Standing	44	44.58	31.73	37.52
First Steps Alone	60	61.29	44.31	50.00
Toilet Training	144	108.10	90.73	107.89
First Words	52	83.27	65.50	65.42
Obedience Training	96	85.5	58.57	67.68

[a]Norms established by De Lissovoy (1973)

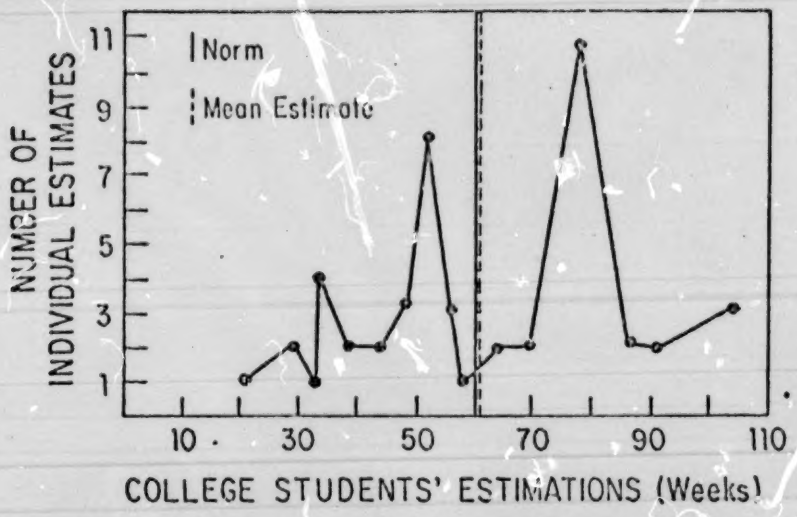
Table II

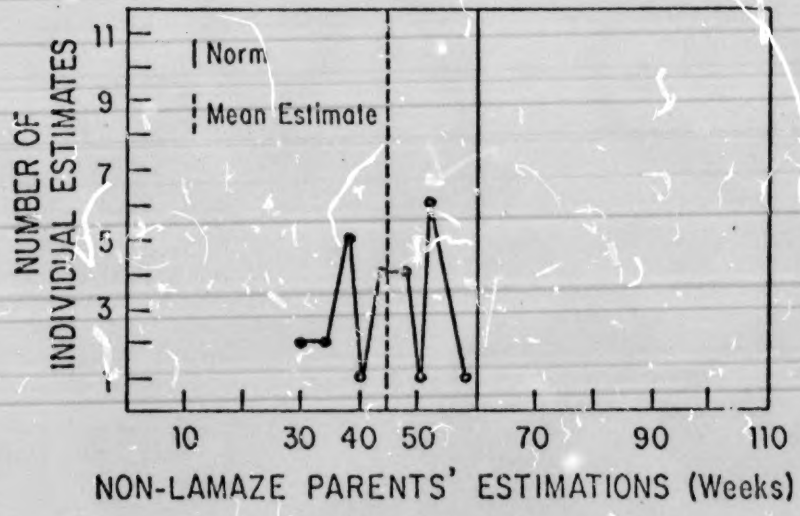
Subgroup Mean Absolute Error Scores on Developmental Milestones

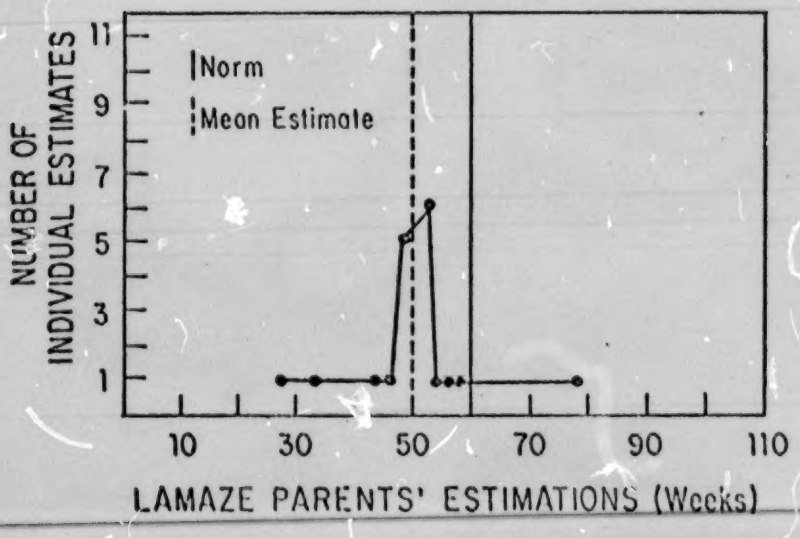
Developmental Milestone	College Freshmen	Non-Lamaze Parents	Lamaze Parents
Social Smile	4.54	3.92	2.58
Sit Alone	13.42	5.42	6.25
Pull Up to Standing	15.14	12.88	8.36
First Steps Alone	18.08	15.69	12.89
Toilet Training	46.62	53.27	36.[illegible]
First Words	37.26	18.27	16.68
Obedience Training	41.37	42.65	36.32

Figure Caption

Figure 1. Frequency distribution of onset of independent walking for the three groups.


NUMBER OF INDIVIDUAL ESTIMATES
Norm
Mean Estimate
1
3
5
7
9
11
10
30
50
70
90
110
COLLEGE STUDENTS' ESTIMATIONS (Weeks)


NUMBER OF INDIVIDUAL ESTIMATES
Norm
Mean Estimate
1
3
5
7
9
11
10
30
40
50
70
90
110
NON-LAMAZE PARENTS' ESTIMATIONS (Weeks)


NUMBER OF INDIVIDUAL ESTIMATES
Norm
Mean Estimate
1
3
5
7
9
11
10
30
50
70
90
110
LAMAZE PARENTS' ESTIMATIONS (Weeks)